

Mohammad Javad Ghaderi poor

AI Engineer | LLM & RAG Engineer | Machine Learning & Computer Vision Researcher

✉ mohammad.ghaderi211@gmail.com ☎ 09140790153 📍 Tehran, Iran 🏠 1381

🛡 Educational Exemption 🔗 LinkedIn 🐙 GitHub 🆔 ORCID 🔗 mohammadjavadghaderipoor.ir

Summary

Artificial Intelligence Engineer currently completing an M.Sc. in Artificial Intelligence at Allameh Tabataba'i University, specializing in Large Language Models (LLMs), Retrieval-Augmented Generation (RAG), Generative AI, and advanced machine learning systems. Experienced in designing and implementing end-to-end LLM applications using frontier and open-source models, with strong expertise in RAG architectures, semantic retrieval, vector embeddings, prompt engineering, tool/function calling, agentic workflows, and parameter-efficient fine-tuning techniques including LoRA and QLoRA.

Hands-on experience building context-aware AI systems that integrate external knowledge bases, vector databases, LLM APIs, local language models, and autonomous agents. Proficient in designing and evaluating LLM-based architectures and selecting appropriate approaches—including RAG, fine-tuning, and multi-agent systems—based on task requirements, retrieval quality, accuracy, latency, scalability, and computational constraints.

Strong research background in Machine Learning, Deep Learning, Computer Vision, Convolutional Neural Networks, and Explainable AI (XAI), with previous research focused on CNN interpretability and visual explanation methods, resulting in the publication of “AdaLayer-CAM: Adaptive Multi-Layer Method for Visualization and Explanation of CNNs.” Additional experience includes predictive modeling, feature engineering, hyperparameter optimization, financial forecasting, and data-driven decision systems, along with earlier hands-on experience in Android application development, UI/UX design, and user-centered software development.

Work Experience

LLM & RAG Researcher / AI Engineer	09/2025 – Present Tehran, Iran
- Researching and developing LLM, RAG, Generative AI, and agentic systems for context-aware AI applications. - Building end-to-end RAG pipelines with embeddings, vector databases, semantic retrieval, and LLM-based generation. - Developing frontier and open-source LLM applications with tool calling, AI agents, multi-agent workflows, and local inference. - Applying LoRA/QLoRA, PEFT, and LLM evaluation using Python, LangChain, Hugging Face, ChromaDB, Ollama, and LLM APIs.	
Researcher, Computer Vision & Convolutional Neural Networks	09/2024 – 09/2025 Tehran, Iran
- Conducted research in Deep Learning, Computer Vision, CNNs, and Explainable AI (XAI), focusing on neural network interpretability and visual explanation methods. - Designed and evaluated CNN visualization techniques, analyzing feature representations and model decision-making processes. - Developed AdaLayer-CAM, an adaptive multi-layer method for CNN explanation and contributed to the IEEE publication: “AdaLayer-CAM: Adaptive Multi-Layer Method for Visualization and Explanation of CNNs.”	
Machine Learning Researcher & Developer (Market Prediction Systems)	10/2023 – 09/2024
- Developed ML and neural network-based forecasting models using real-world time-series data. - Applied feature engineering, selection, hyperparameter optimization, and model evaluation for predictive performance improvement.	

- Explored ML architectures and statistical approaches for data-driven forecasting solutions.

Python Instructor	10/2022 – 10/2023
• Taught Python programming, data structures, OOP, and problem-solving through practical coding sessions. • Designed exercises and guided students in debugging, code organization, and applying Python to computational problems.	Shahrekord, Iran

UI/UX & Android Application Developer	04/2022 – 10/2022
• Developed Android applications with focus on UI/UX, usability, and user-centered design. • Applied interface design, debugging, and iterative development practices to improve application quality.	Shahrekord, Iran

Education

M.Sc. in Artificial Intelligence , <i>Allameh Tabataba'i University</i>	2024 – Present
	Tehran, Iran
B.Sc. in Computer Science , <i>Shahrekord University</i>	2020 – 2024
	Shahrekord, Iran

Skills

Generative AI & LLM Engineering • Large Language Models (LLMs) & Generative AI • Retrieval-Augmented Generation (RAG) • Prompt Engineering & Context Engineering • Semantic Search, Information Retrieval & Vector Embeddings • Vector Databases • AI Agents & Multi-Agent Systems • Function Calling & Tool Integration • Multimodal AI	LLM Fine-Tuning & Open-Source AI • LangChain • Hugging Face • ChromaDB • Ollama • Gradio • OpenAI API • Anthropic Claude API • Google Gemini API
LLM Frameworks & Tools • LangChain • ChromaDB • Hugging Face • OpenAI, Anthropic Claude & Google Gemini APIs • Ollama • Gradio	Machine Learning & Computer Vision • Machine Learning & Deep Learning • Neural Networks & CNNs • Computer Vision & Image Processing • Explainable AI (XAI) • Predictive Modeling & Time-Series Forecasting • Feature Engineering & Selection • Hyperparameter Optimization • Model Evaluation & Data Analysis
Programming & Software Development • Python • SQL • Git & GitHub • Jupyter Notebook • REST APIs & API Integration • Object-Oriented Programming (OOP)	

Awards

Ph.D. Entrance Exam Rank : 19 Ranked 19th nationwide in the Ph.D. entrance examination in Computer Science	2026
Top Master’s Student Recognized as a top-performing student in the Master’s program in Artificial Intelligence	2025
M.Sc. Entrance Exam Rank : 190 Ranked 190th nationwide in the M.Sc. entrance examination in Computer Science	2023
Top Undergraduate Student Recognized as a top-performing student in the undergraduate Computer Science program	2023

Languages

English
B2

Certificates

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|---|---|--------------------------------|
| • LLM Engineering: Master AI and Large Language Models Udemy | • Supervised Machine Learning ↗ | • Advanced Learning Algorithms |
| • Unsupervised Learning, Recommenders, Reinforcement Learning ↗ | • Digital Marketing ↗ | |

Publications

AdaLayer-CAM: Adaptive Multi-Layer Method for Visualization and Explanation of CNNs, *IEEE* | 2026
<https://doi.org/10.1109/IICAI70155.2026.11621051> [↗](#)